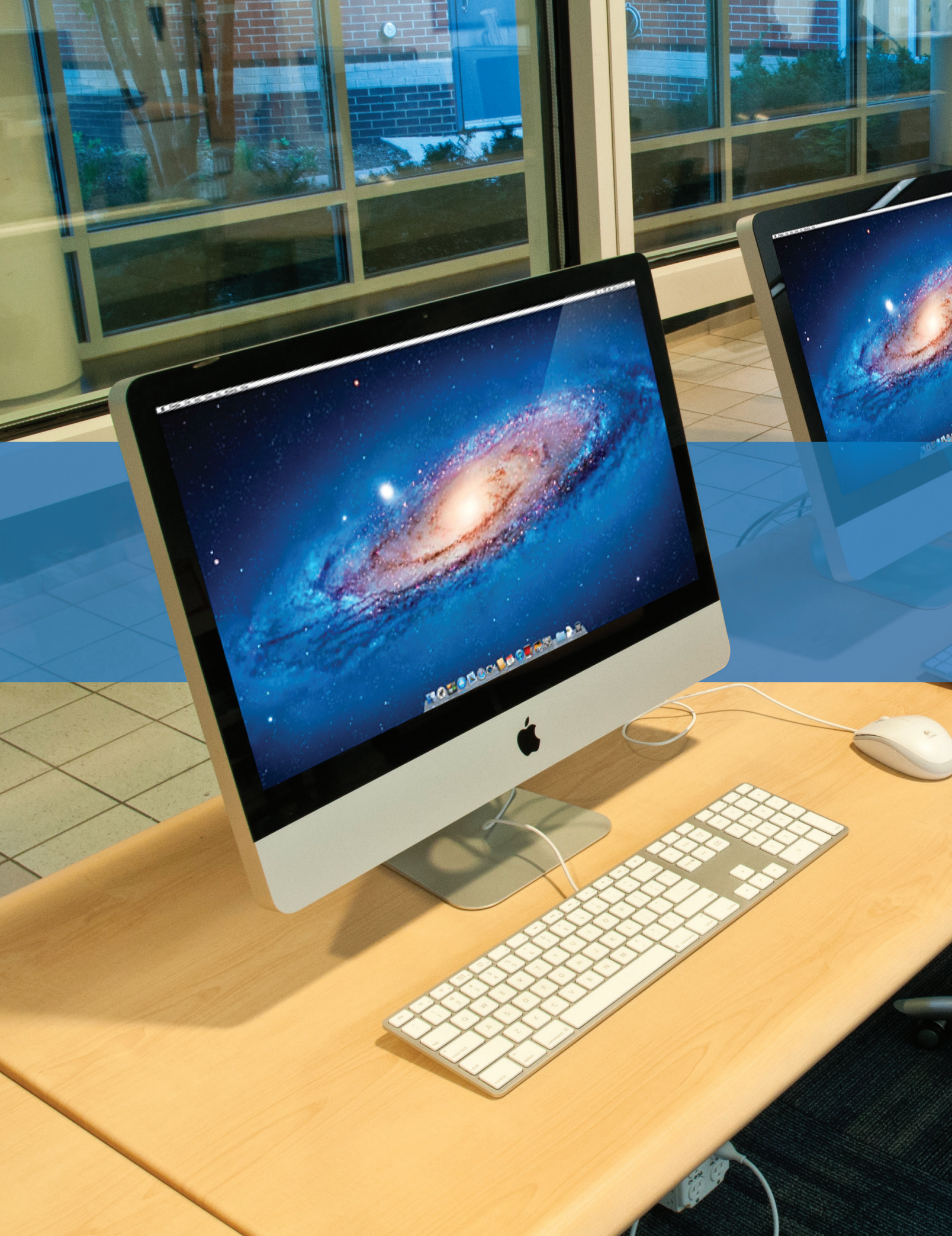

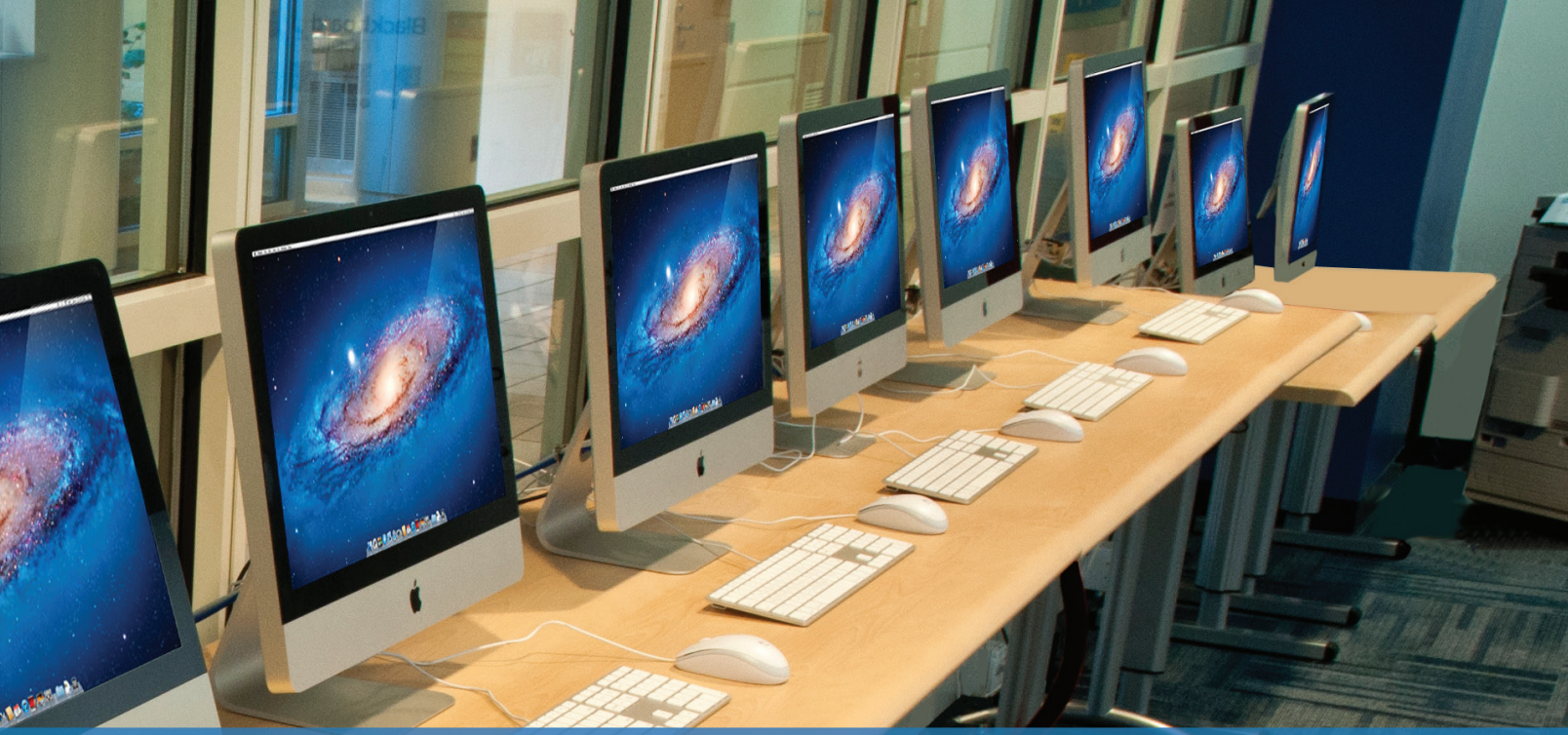

New Design and Synergistic Collaboration Revitalize Gallaudet University's Harkin Computer Lab

by John Kessell and Mira Korber

At Gallaudet University, the on-campus Harkin Computer Lab meets the varied academic and resource needs of its student body every day.

To upgrade the existing computer lab and maximize learning potential, SMARTdesks recently designed and implemented a comprehensive new space for this prestigious, Washington D.C. University.

Federally chartered in 1864 under the Lincoln administration, Gallaudet University's longstanding mission is to provide the intellectual and professional advancement of deaf and hard of hearing individuals through American Sign Language and English. Its programs and teaching methods prepare Gallaudet students to succeed in a highly competitive, technological and changing world. Upgrades to the Harkin Computer Lab fit with the university mission with the overarching goal to "future-proof" the facility through furniture design that offers flexibility to accommodate ever-changing technologies.

A NEED FOR CHANGE

The Technology Services Team at Gallaudet visited the nearby company showroom in Linthicum, MD, and started a collaborative dialogue with company president Jeffrey Korber, in order to determine which furniture offered the communication tools and learning platforms the school sought.

At the meeting, the Gallaudet faculty and IT specialists employed an interpreter who used American Sign Language in conjunction with a conference room phone and a computer station webcam. All of these technology supports were already readily available for use in the Piano™ conference table at the showroom. Additionally, the arrangement of the table and the space made it easier for the hearing and deaf participants to converse. Because of the low profile monitor placement in the table, meeting participants could easily communicate through direct eye contact and easily visible sign language motions while the interpreter facilitated communication for the group. Witnessing this communication was vital; the Design Team could then begin visualizing a comprehensive, communication-friendly lab for Gallaudet University.

The Design Team was invited to the Harkin Computer Lab to see the space and to further understand the students' and educators' needs. While Gallaudet educators had resourcefully optimized their space, it became evident that the design was dated and not operating to full potential. Converted rectangular tables were arranged in long rows, creating a congested feel. Cramped study carrels were too small for two people to share the space to converse with others online using sign language.

COLLABORATING ON THE CLOUD: GALLAUDET CREATES A NEW SPACE

After assessing the necessary ergonomic and spatial updates Harkin Computer Lab needed, the Design Team began its daily practice of design collaboration. As a virtual office company, design team members are geographically distributed across the United States, and professional interior designers, engineers, and factory production managers routinely communicate using the Design Cloud. Via this platform, company members and the customer can communicate and share ideas, floor plans, and files in one convenient location.

Gallaudet University and company project managers easily uploaded and shared documents, drawings and support information, organized in one location, including time stamps on every upload. This made working with the members of Gallaudet a smooth experience for both company and client because much of the project-based communication was written and expressed graphically. Design Cloud allowed the Gallaudet team to communicate internally with constructive input from the company, which ultimately led to the final consensus-built design. In production, Design Cloud helped managers keep the process on track for completion within the expected schedule.

The accepted design opens up the main space for the Harkin Digital Commons. Instead of linear rows of computers, triangular Collab® Computer Conference Tables provide a more conducive workflow. With their equilateral design, the aisleways created by the shapes offer mobility and easier access to computers. The broad

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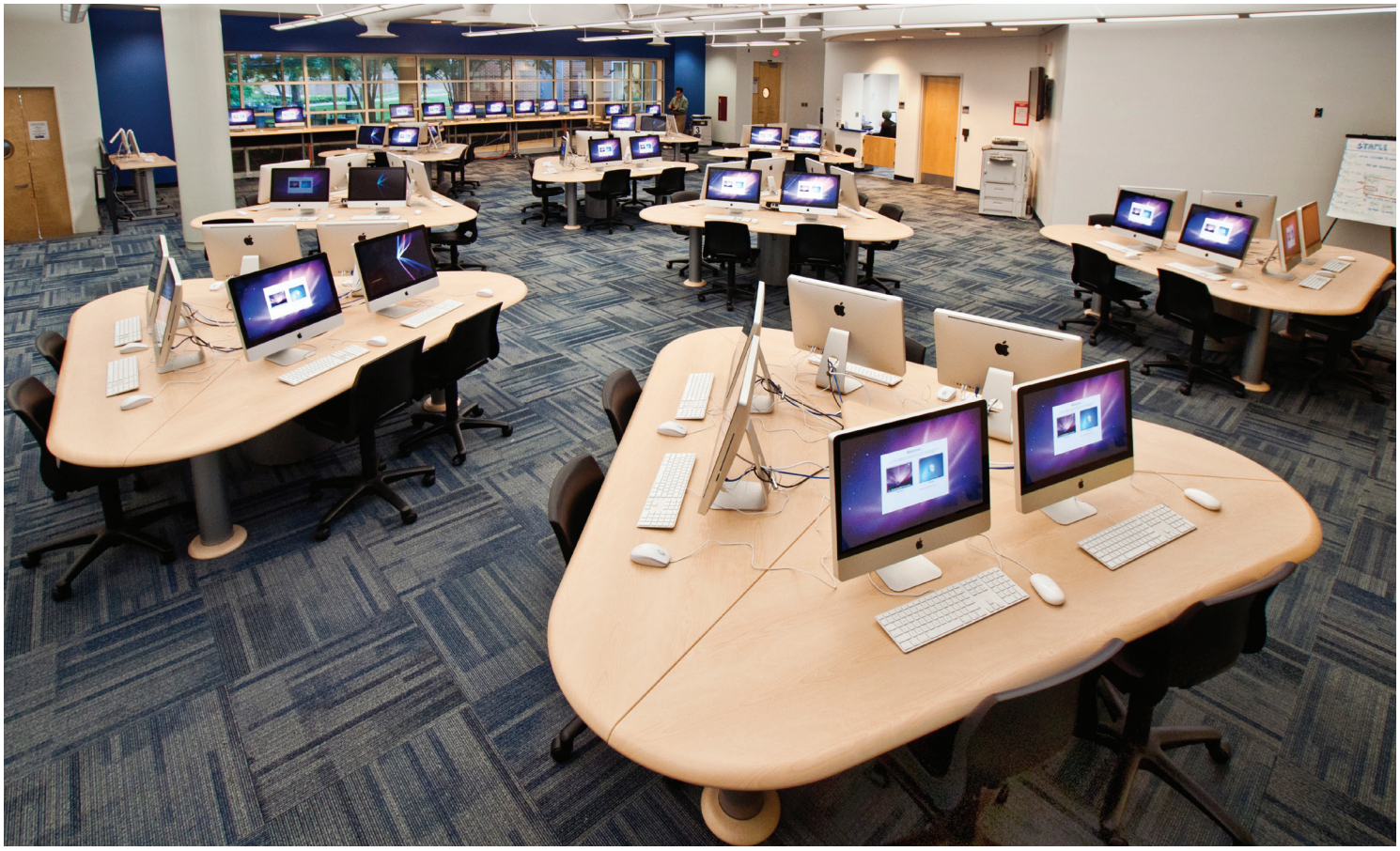


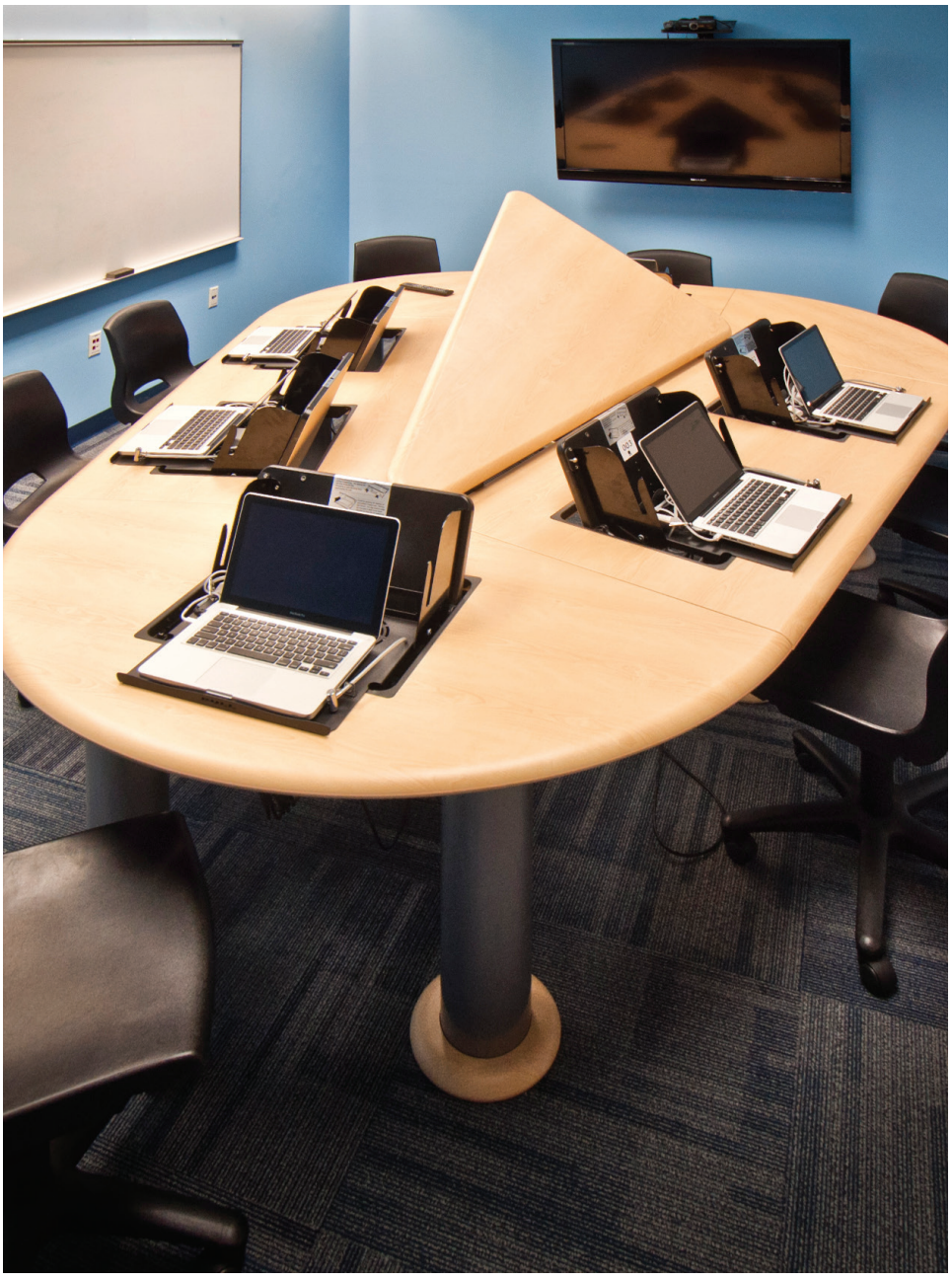
aisles conform to Americans with Disabilities Act (ADA) regulations for access everywhere in the space. When communicating in small groups, students can select a corner of the table to congregate around and spin an iMac into position to share the centrally located webcam.

Additionally, small study carrels are no longer necessary for one-on-one interaction through webcams; the lines of the table offer personal computer space when preferred. The larger aisleways provide enough physical space to enable signing communication to take place without the visual noise characteristic of the old linear table arrangement. Each webcam is positioned to focus on the main user; users at other computer stations face the opposite direction and their signing is blocked from sight, which offers a focused learning environment. With open space, flexible group arrangement, and one-to-one privacy, the new computer lab was a success.

COMPREHENSIVE WIRE MANAGEMENT

Cable management presented a significant challenge for Gallaudet's team. The University had retrofitted a raised access floor so power and data could be routed under the floor, but this did not address the unwieldy snarl of cables that spilled from the back of each table. To remedy this, the Collab® table design offered a large 18 inch diameter center column for routing power and data cables from the floor to the technology in the table. A large hatch on the column provided ready IT access and routed power and data from the access floor to the base of the table. The visual clutter vanished.

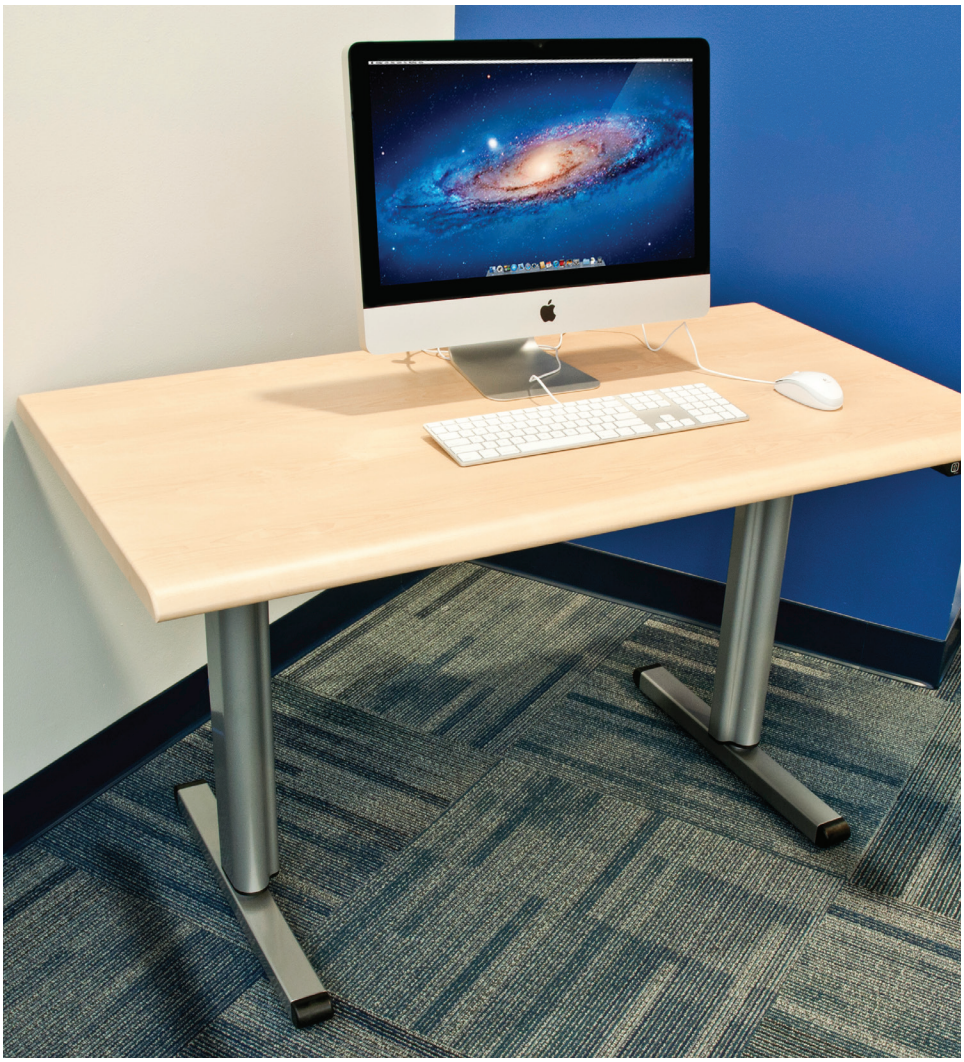
Next came the challenge of power/data connector boxes for their furniture. The existing connector boxes opened to a small trough without sufficient room to plug in laptop power transformers, and the Gallaudet technology team wanted receptacles accessible from the top, but presented in an unobtrusive way. The company and Gallaudet designed a fixed, decorative cap where simple power/data boxes could be mounted. The connection boxes the company offers and Gallaudet selected are usually mounted under the table, but after conferring on design, both parties agreed that mounting them in a central position behind the iMac® screens would be visually quieter. The company designed this modification especially for Gallaudet.



ERGONOMIC FURNITURE COMPLETES THE LAB

With all of the triangular tables in the room, Gallaudet still needed some rectangular tables with built-in wire management. A line Nesta™ tables was placed in front of the Harkin's glass wall. This placement opens the room and gives easy access to the iMac® computer stations. The lighting from the windows sets up an aesthetic backdrop for the built-in web cams. Because studies have shown that people perform better and experience increased focus when standing, students work at these stations while on foot. Those who wish to sit may do so at the Collab® tables. Because churn rate is high in this area, the idea of standing for a short, focused time is a practical way of giving greater access to more students.

At the ends of this arrangement are Cirrus™ Series motorized adjustable height tables. These tables quickly adjust with a touch of a button and accommodate a variety of users and working styles, including people in wheelchairs. Cirrus™ adjustable height tables are available with ratchet adjustment, spring pin and



floating counterbalance. Gallaudet selected the motorized version. It is not only adjustable with the press of a button, but heights can also be stored in memory to accommodate those who return on a routine basis.

TELECONFERENCING FOR THE 21ST CENTURY

Harkin's teleconferencing suite also needed a complete redesign. The walls featured large whiteboards, a large video display and a single camera. A cluttered U-shaped arrangement of rectangular tables made communication difficult and it was difficult for all participants to see and be seen. The new table design, the Piano™ 5 Computer Conference Table, offered a wire management solution, a collaborative shape for telepresence, and a secure place to store laptops when not in use.

The Piano's unique geometry and scale worked well for the unusually shaped room. Six flipIT Laptop Safes® were added to store the laptops securely when they were out of use. Gallaudet's MacBooks securely stow under the flipIT's locking lid. The laptops remain connected to power and data while in use or when stowed. The profile of the lid is lower than the laptop screen, so participants can communicate without visual obstruction. The Piano's hinged lid and technology well neatly hide wires and small components. The result: a clean looking studio set that frames people's faces for visual interaction in the room and on camera.

The Harkin Digital Commons Learning Center has proved a resounding success for the students and faculty. Due to the upgrades to the facility, the room is always near capacity with negligible down time. The excellent design reflects a synergistic collaboration with the Design Team and Gallaudet University's commitment to create the foremost learning environment for people who are deaf or hard of hearing.